

Suraré
Pahidái

/77 cont./

● 226 c) Fishing

[177]

Fishing plays a very subordinate part, and since olden times it has been carried on, with bow and arrow, only from the river-bank. Fishing by means of poison or landing nets, weirs, and similar implements is unknown. Recently, however, these Indians have now and then used fishhooks of metal (354), which were

354. They fasten these to a line of cotton or Bromelia fibers.

226
262 given them by rubber and palm-fiber gatherers, as well as by the Indian protection post on the Rio Demini. Nevertheless, this has not substantially increased their interest in fishing, for fish simply are not among their favorite foods. Moreover, only smaller species may be eaten (355), because all the large ones have the

355. Aracu (Leporinus copelandi Steind.),
piranha (Pygocentrus sp. and Serrasalmus sp.),
surubim (Platystoma sp.), jandiá (Sciluridae
sp.), mandi (Rhamdia sp.), curimata
(Prochilodus sp.), pescada (Gadus sp.),
dourado (Salminus brevidens), tambaqui
(Characinidae sp.), mandubi (Auchenipteridae
sp.), anujá (Trachycoristes sp.), cuiú-
cuiú (Oxidorus niger Vall.), etc.

evil breath of the river within them and thus cause sickness and other misfortune. Thus, they, of course, abhor the pirarucu (Osteoglossidae), over three meters long and the largest fresh-water fish, the dried meat of which represents practically the basic diet of the caboclo population (planters, rubber and palm-fiber gatherers), and the delicious meat of the large water-turtles is also rejected by them for this reason.

Surayq
Pakidai
Waica

/78/

226
184 Among the Waiká, too, fishing ranks last in the acquisition of food and is likewise practiced with bow and arrow there, as well as with the fishhook in more recent times. It is worth noting, however, that in addition they are familiar with a method of fishing by poisoning the water (356a) (356b) 357).

356a. Barker, 1953, pp. 464/65.

356b. Zerries, 1956b, p. 152.

357. Zerries, 1958c, p. 179.

222 d) Gathering

462 Not only women, but also men take part in the gathering activity. The latter have the duty in particular to bring in the fruits of the many palm species (358), of which the following are

358. The general name for palms is --
petabaámo.

the most important: acaf (Euterpe oleracea Mart.) -- uaifma --, bacaba (Oenocarpus distichus Mart. or Oenocarpus bacaba Mart.) -- hokomaké --, buçu (Manicaria saccifera Gaertn.) -- yauetosfk --, buriti (Mauritia vinifera Mart.) -- etewexf --, curua (Attalea spectabilis Mart.) -- yauatoá --, tucuma (Astrocaryum sp.) -- pahá -- (359), and pupunha (Guilielma speciosa Mart.) --

[481] 359. To climb the palms named they used the climbing ring (see pp. 119/120).

komunamá -- (360). The fruits of smaller palms that are easy to

[481] 360. Since the trunk of this palm is covered with sharp thorns -- mifmicibá --, it can be climbed only with the help of two specially constructed implements (see pp. 121/122).

Surára
Pakidái

/79 cont./

- 222 which can be obtained easily and without danger, for the bees are stingless. Usually they have their nests in hollow trees or in the ground. Occasionally, however, one also sees nests built in tall trees; the latter are then cut down by the men, for the purpose of obtaining the honey. The honey is scooped out of the nest with the hand or with a calabash and put into a folded palm leaf which is then tied together and taken along to the maloka. -- Birds' eggs also constitute a popular addition to the diet, as does the nourishing yolk of the eggs of water turtles; the egg white, on the other hand, is discarded because it has an unpleasant, fish-oil taste. During the dry season, especially during the months December-February, the Surára and Pakidái gather these turtle eggs in great numbers on the sandbanks of the Demini and Aracá. --
- [226] Also to be mentioned are crayfish and crabs, which are pulled out of the holes in the mud of the riverbanks. -- I also observed that they eat certain kinds of frogs and spiders, as well as insect larvae, caterpillars, termites, and the hind parts of the leaf-cutter ant (Atta sp.) -- aneanemá.

241 e) Agriculture

Although agriculture among the Surára and Pakidái was introduced only a comparatively short time ago, they have already developed a remarkable system with regard to the laying out of their fields. These are always laid out circularly around the maloka. The procedure is such that, first of all, at the beginning of a dry season, October-November, a rather large piece of forest is cleared, during which it is seen to that the circular shape is produced. To chop down the underbrush and the lianas, the men use the terçados (large bush-knives), and the trees are felled with steel axes (367). After about two months, when the felled

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367. The Surára obtain these articles of civilization from the palm-fiber gatherers by barter, and the Pakidái get them from the Indian protection post Ajuricaba on the middle Demini.

Guahibo SC14

Yabarana SS 22

Panare SS 21

/11 cont./

Sanema

Saliva SS15

Makiritare SS 20

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All these basins, without exception, pour their great volumes of water into the Orinoco, which, like a gigantic arc, runs across the north of the Escudo de Guayana, thus enclosing all the native tribes studied here and marking the farthestmost boundary and end of their primitive world (cf. ethnic map /see p. 5 /). /12/ /Map appears here. /

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/13/ It is interesting to point out that the extensive fluvial network of the Orinoco-Ventuari zone does not serve the majority of the tribes as a means of communication or as an outstanding source of food. The Panare of the basin of the Cuchivero do not travel by river, and on the Cuchivero we found only one dugout

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[177]
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177

/bongo/, which was used solely for crossing the river. In general the curiara /dugout canoe/ seems to be a foreign element in Panare culture, introduced recently by the Creoles. Nor did the Yabarana of the basin of the Ventuari use the curiara, and they recently learned from their neighbors, the Makiritare, the art of making them. For the Sanema the river represents an obstacle rather than a means of communication, and they use rafts in order to cross it. At the present time, only the groups who live in symbiosis with the Makiritare make curiaras, but there is not the slightest doubt that this industry was adopted recently. The Sanema spend less time at fishing than do the Panare, Yabarana, and Guahibo, since the latter too are among those Indians oriented toward the land, with its roads, rather than toward the rivers and navigation. The only real voyagers of the Orinoco-Ventuari zone are the Piaroa and the Makiritare, and the fame of the latter exceeds that of the former.

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Culturally, the Makiritare belong to a Neo-Indian level, as do their cousins of the same linguistic affiliation, the Panare and the Yabarana. It is interesting, however, to call attention to the fact that to speak of Caribe /Carib/ Indians is not the same eo ipso as speaking of voyaging Indians. There are Neo-Indians who are ignorant of the curiara and who developed agriculture, not in a Meso-Indian culture (of fishermen and voyagers), but basically on top of a Paleo-Indian culture (of hunters). Meso-Indian cultures, such as that of the Warao, for example, and possibly that of the Piaroa, represent a specialization of the Paleo-American who was

[Text continues on P. 4]

/204 cont. /

- 226 They also fish, but fishing takes second place and is much less important than hunting.
- 222 Other important sources of food are wild fruits and vegetables,
241 which they frequently obtain. Many local groups devote themselves to agriculture, which they carry on in rudimentary fashion and which they adopt from their Caribe neighbors, but for many groups the products of the earth constitute at present a primary food base.
- 224 The men prefer to go out hunting at dawn or in the afternoon before the sun sets. During the morning they spy on the game as it comes to drink water or to look for food in the places known by the hunter. In the afternoon the Sanemá hunts birds when they return to the trees to spend the night hidden among the leaves.
- [223]
- [789] The men commonly go out alone, sometimes with a companion, or in small parties. They walk with great care, without
[826] making any noise, and they believe that in a moment of great danger they can develop such power in their necks that it lifts them above the ground and they fly to the height of the trees.
- 224 /205/ The hunters prepare themselves in various ways for
777 their work. If one of them has had bad luck, he tries to rid
826 himself of the "dark blood," the cause of his poor aim. He
[237] achieves this by piercing, by means of a ray-fish sting, the muscles of the arm or by making small incisions on the forearm.
- [841] "Dark blood" is produced in the body of a man when a woman during menstruation touches the hunter or one of his weapons, or also when a woman in this condition has eaten any of the game hunted by him.
- 224 A good hunter does not eat any of his own catch in order not
262 to lose good luck or to miss when he shoots. He eats the game
[777] of his companion; of the animals caught by him he only asks for the skull and the ribs, which he carefully keeps in certain places near the rancheria or in his house. They are exhibited
[554] there in order to augment his prestige as a skillful hunter, on which depend many aspects of his social life, such as, for example, obtaining a second wife.

262 /207 cont./

223 it answers that it is an enemy is he to kill it. In the majority of
825 cases it turns out to be an enemy, and the hunter kills it with a
double aim: to have meat and to cause an enemy to disappear.
The hunter carries the eagle home, and his wife prepares it for
[514] food. Those who eat the meat must not defecate on the ground,
[785] but only in the water. The hunter himself must not eat any of
this meat and fasts for two months. The eagle "weighs heavily"
on his chest, and only when it has "gone upwards" does the
hunter get better and begin to feel well again. From now on
those who have eaten of the meat may live without taking the
above-mentioned precautions (22).

22. See the section which deals with "war"
/see p. 57 /.

825 It might be said that for every Sanemá rancheria there
exists a rancheria of eagles and of hanekasá. This belief has
characteristics of the idea of the alter ego, and the Sanemá
apply kinship terms to these animals when they speak to them.
The same occurs with regard to jaguars and other animals which
they mentioned to us vaguely.

• 226 Fishing plays a very secondary role in the Sanemá economy.
[433] They fish with barbasco, with bow and arrow, but we have not
seen special arrows for this purpose. In recent times they have
adopted fishhooks, which they now use quite frequently.

222 /208/ Of secondary importance, coming after hunting, is
the gathering of various kinds of small animals, insects, wild fruit,
[527] and also honey and eggs. The shoots of palms represent an im-
portant part of the diet, but above all the fruit of the pijiguao
palm (Guilielma sp.), the harvest of which, during the first three
months of the year, marks the time of festivities and other social
[114] activities. We were not able to gather much information from
the Sanemá regarding this matter, but Barker (1953, pp. 447-48),
Zerries (1955b), and Becher (1960) refer to this festive occasion
in greater detail, according to their observation of it among
the Waica, Pakidai, and Surara (cf. Vinci, 1959, pp. 111-118).

BLOOD GROUP ANTIGEN TESTS

81

In 1913, Koch-Grünberg⁵ had observed that Yanoaman was different from 197
Cariban and that it apparently represented an isolated language. While this opin- 114
ion was shared by the majority of authors who subsequently referred to the lan-
guage, two American linguists have recently broken with this tradition by forward-
ing suggestions of possible affiliations. Greenberg⁶ classified "Shiriana" as a dis-
tinct group belonging to the "*Chibchan proper*," subfamily of the "*Macro-Chib-
chan*" family, and Swadesh⁷ established a "*Macro-Siriana*" with an internal separa-
tion of 30 mc, including Chapacura (27 mc), and Sirisana (21 mc). He later
suggested (personal communication) that Waraoan should also be reckoned in
"*Macro-Siriana*," which would increase the internal divergence of this micro-
phyllum to that of 72 mc. Since the latter suggestion is of major interest to the dis-
tribution of the Diego antigen, we shall return to the discussion of the same after
having presented the material on the Waica blood groups.

Cultural aspects. The Yanoama are a semi-nomadic forest people who rely for 105
their subsistence chiefly on hunting, gathering, and arboriculture. Fishing is of a
very subordinate importance and only peripheral groups, such as the northern 226
Sanemá, have adopted agriculture from neighboring tribes. Although arboricul- 241
ture is of vital importance among most of the Yanoama subtribes (plantains 177
[*Musa paradisiaca normalis*], and pupunha [*Guilielma garipae*]), there can be 245
little doubt that the basic economic and cultural pattern of the Yanoama has re-
mained essentially on a Paleo-Indian culture level of the early hunting peoples of
South America.

Yanoama technology is very little developed. The Waica produce thick-walled 323
conical cooking pots, and Yanoama women make large twined carrying baskets. 285
Cordage, belts, and one type of hammock are made of planted cotton, but weaving 286
and metal work of any kind is unknown. Recently, several Yanoama groups have 325
learned how to make dugout canoes, but their crafts and paddles still lack the
perfection of the same artifacts among their masters (e.g. Caribs). Very long 396
bows and arrows are the main weapons of these Indians, but stick-clubs may ante- 411
date the former.⁸

The local groups of the Yanoama are composed of bands of several extended 621
families with nuclear family households. Residence rules have, as yet, not clearly
been established, but judging from the Sanemá of the Erebetó and from the 591

⁵ Koch-Grünberg, 1913, pp. 473-478.

⁶ Greenberg, 1976.

⁷ Swadesh, 1979, p. 20.

⁸ Only the Waica were reported to make pottery, and the planting of cotton is very recent.

M

123

Once more we were left on our own, waiting for the plane and making plans for a documentary film we wanted to take back. In the meanwhile a Makiritari showed up. He was a middle-aged man, muscular like a statue, and his skin was the colour of copper. Our visitor had a doleful little voice which contrasted oddly with his athletic appearance. It hovered somewhere behind a perpetual smile, like the crowing of a cock screened off by a flowering hedge. Pedro was the name. He had made his way through the Ventuari and the lower Caura, with *molto tarauaho*—much work, much exertion. . . .

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Pedro would have come to see us before, but he had been put off by the presence of the Shirians. 'Shirians—bad men,' he told us. 'Me, Pedro, good, not bad man.' His wife had a mastoid, and he had operated on her with a splinter of glass that had originally been part of a medicine bottle from Las Trinqueras—everything civilized came from Las Trinqueras, the hub of the world. And the woman, a dried-up thirty-year-old, had in fact a deep cut behind her ear which was suppurating. A few injections of penicillin soon put that right, and such was the patient's gratitude that whenever she saw us coming or going she would give us the same meek, piteous look as a lamb about to be slaughtered, and then turn to the others saying: 'What good men, what good men. . . !'

Pedro was a very able fisherman, and when we had supplied him with hooks he went off to the Upper Canaracuni with a child whom we took to be his daughter. But when he came back, he was ashamed of his catch. He thought it wouldn't find favour in our eyes.

'Soto eat them,' he declared, 'Shirians eat them too, but you eat other fish.'

We never could make out whether this was really diffidence on Pedro's part, or whether it was astuteness: so far were we from fully understanding the mentality of primitive men.

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We were to hear more about fish and fishing when Anai came back with his horde of ruffians, bringing us the promised bananas and sugar-cane and receiving in exchange the few goods we still possessed. Anai went fishing in the Canaracuni headwaters with barbasco, a vegetable poison frequently used for this purpose. Artur and I decided to go along with him, leaving the others to wait at Kirisochi.

THE BARTHLY PARADISE

Barbasco is a kind of liana which can grow to impressive dimensions—²⁷⁸ attaining a stem up to eight inches thick. The Indians cut it in the forest and ²²⁶ collect a large pile together at a convenient place for pressing. Their press is ⁸¹⁴ made from one of those dead trunks of hardwood which are found in such ⁽⁴¹²⁾ quantity in the forest and some wooden clubs specially cut for the purpose. The liana stems are pounded and then done up into bundles so that they can be easily taken to the place to be fished, which may be some way off. Here they are immersed several times in the river, releasing a milky juice which gives the water a whitish opalescence. The juice of the liana reduces the air content of the water through oxidization, and the fish very soon come floating up to the surface—asphyxiated but not poisoned.

This procedure is a very common one among the Indians, whose fishing ²²⁶ follows a two-year cycle—this being the minimum time needed for each ⁽⁸²⁵⁾ stretch of water to become repopulated after the use of barbasco. It goes without saying that this extract of liana loses its efficacy in anything bigger than a small stream. Nevertheless, in times of scarcity the Indians will attempt to fish medium-sized rivers in this way, banding together to collect huge quantities of liana. The fish taken are then smoked and wrapped in banana leaves, ⁽²⁵¹⁾ after which they will keep for months.

Auai and his men had to go far afield with their barbasco before they found ^{123*} a suitable place. The probability was that the Shirians had already been at work, ⁽²²⁶⁾ unknown to anyone, near the source of the Canaracuni. We therefore left him to it after all, and returned to camp early one morning, just in time to meet the plane that was circling the field.

VI

On Sunday, the 24th June, a big plane came into sight over the rim of the Sarisariffama mountains—towards the east where they merge into the Sococ range. It swooped down to about three hundred feet and then went off without giving any signal. The excitement among the Indians on the spot—Luis Antonio was one of them and he explained the nature of the machine to his kinsfolk—was doomed to disappointment. And time and again this story of the aeroplane continued to arouse our hopes, only to dampen them once more.

A week later it appeared, at the same time—so suddenly and unexpectedly

6: Vinci T-5 (1950) 1959 SQ18 Yanoama SQ18
Sanema

322
291
142
516



18. Pancho makes his oars at home: the final smoothing stage.

●226
*123



19. Enrico and Pedro make a good
couch in the Mari.

[p. 96 - F]

AT HOME WITH THE SAMATARI

there for the taking in the forest and the supply, from both animal and vegetable sources, is inexhaustible. 411

The bow is of surprising dimensions. It is six feet six inches long, this being equivalent, considering the height of the archer, to nine feet nine inches for us. 411
The simplest pattern is made from the *she* palm. They also use a hardwood— 824
from a tree known in Venezuela as the 'golden pole'. This is very rare, almost as rare among the Indians as metal. But the finest bows of all, possessed by the few and worth a fortune, are made from the corozo tree, the *lahse* of the Shirians. This wood is extremely hard but very fibrous, with the elasticity of a steel spring. The shaping and fining down of these bows, and the making of the arrows, is the one form of craftsmanship known to the Samatari. With this they occupy themselves during the rainy season, under rough roofs of palm leaves. A tree belonging to the Moraceae family furnishes the very tough fibre for the bowstrings: it is found all along the river-banks and in the forest glades. [283]

The slender arrows, six foot six inches long, are made from a cane cultivated in the secret depths of the forest, though it grows naturally on any of the river creeks which flood regularly. Curassow or guan feathers, split in half, are bound on to the cane. [237]

There are three types of arrow-head, according to the purpose for which they are to be used. The lightest is a splinter cut from the shinbone of a monkey, 411
firmly fixed to the end of a short stick, in such a way as to form a sharp-pointed prong. This is used on small animals, and especially for birds and fish. There are numbers of big fish, like the *pampane* and *surupiri*, which lie near the surface so that a slight rippling of the water betrays their presence. The arrow which pierces them cannot be shaken out, and its length and weight make it difficult for the wounded fish to get very far. [237] [226]

Another kind of point is virtually a miniature spear fashioned out of a very hard bamboo cane. Very sharp, and razor-edged, it will strike deep into the most resistant flesh, the toughest hide. The Samatari use this on the bigger game, such as tapir, and also for war—though for the latter purpose it is superseded by a specialized warhead. This is a sharpened splinter of palm wood—the same as goes to the making of the bows—dipped in a red poison made from the bark of a certain tree. A series of rings, four or five of them, are notched out round the arrow-tip, so that it is weakened at these places. If the tip strikes bone on entering the body, or if the arrow is pulled out, it snaps at one of these weakened parts, leaving the broken tip embedded in the flesh so that 726

/441 cont./

Obtaining Food

224 Hunting.

Hunting is done with bows and arrows.

[411] A broad arrow-point of bamboo is used against larger land game, such as the danta, the váquiros /peccaries/, and the large rodents. Poisoned points are used against monkeys and occasionally against dantas. Bone points are used principally to hunt birds. Small birds are hunted with arrows with a blunt point or forked point.

[231] Dogs are used in hunting, and in the case of the smallest wild pigs, these dogs frequently do more killing than the hunters.

The hunters hunt together and surround the game. The one who succeeds in killing it is the owner of the animal. He might make a gift of a few pieces to those who have helped him, but in general he carries the entire animal to his house, where it is cooked. A danta, of course, must be divided up on the spot in order to be transported.

262 Almost all the mammals are eaten, felines being the principal exception. A few snakes are eaten; others are not. The babilla /an amphiidous reptile/ is also eaten. Birds of prey, such as hawks, eagles, vultures, and turkey buzzards and others, are not eaten. Almost all the other birds are eaten, even the little humming birds.

/442/ Meat is considered an essential part of the diet and perhaps occupies the second place of importance after platanos.

● 226 Fishing.

Several types of toxins are used to poison fish in the small currents of water. One of these is a bejuco. Another is the shell of an edible nut with a prickly husk. Another is the bark of a certain tree of great size.

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857 When the waters lower in streams and swamps (generally around the months of January and February), women and children go out armed with clubs and come back with baskets full of fish.

/442 cont./

● 226 When the larger river is low, the men wade into the current
462 and shoot at the fish with their arrows with bone points. Then,
since the arrow lacks a string with which one could pull in the
fish, they must run after the game in order to finish it off with
blows of the machete or club.

226 For fishing they are beginning to use hook and line with
increasing skill.

262 Almost all species of fish and aquatic animals are eaten.

222 Honey.

262 To obtain honey, the usual method is to cut down the trunk
in which the hive is found, using the ax. Nevertheless, they
sometimes manage to climb it and obtain the honey without
needing to knock it down. There is also a species of bee which
lives in the ground, and its honey must be dug up. They possibly
eat the honey of some ten or more varieties of bees.

Eggs.

The eggs of the majority of the wild birds are collected and
cooked. They wrap them in leaves and place them on the em-
bers of a wood fire. They are cooked in a short time. Some
prefer to eat the eggs when /443/ the chick has begun to form.
Turtle eggs are also eaten, but they are scarce, except down-
river.

Insects.

Bees are eaten when they are still in the larval form in their
nest. Wasps are chased away by means of a torch of dry leaves,
which kills or chases away the adult wasps. Then they take
down the wasp's nest, which they place for a short time over the
hot embers. Roasted wasp larvae are then eaten with pleasure.

Wild fruits and seeds.

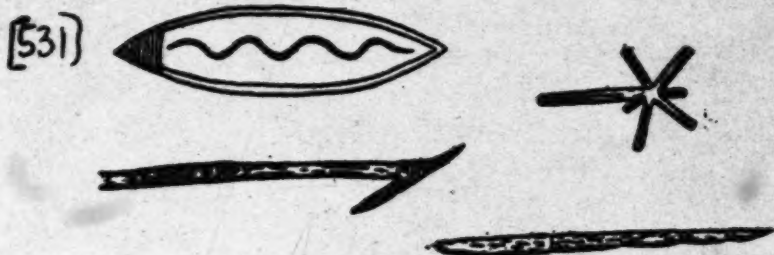
It seems that there is not a time without at least a few types
of wild fruits and seed in season. Most of these are eaten raw,
although a few are cooked. During its harvest, the wabu -- a
large seed similar to the frijol -- can be very important, espe-
cially when other foods are scarce.

/464 cont. /

411 The children make small bows, generally for their games, but
859 they also shoot lizards, which are good bait for fishing. These
bows may be made of several types of wood, but rarely of palm.

[824] The bows of the men are always made of palm.

411 Macanas are used by women for fishing. They are also used
• [226] by men in their attacks on other settlements with which they have
had more or less friendly relations, for the purpose of recovering
the wife or daughter held captive there.



/Fig. 7/

Poisons

278
[226] A variety of poisons for fishing are used by the Guaika
/Waica/. One comes from a vine, another from the husk of a
prickly nut, and the third from the bark of a certain thick tree.

[411] Arrow points are poisoned with the poison from the bark of
a vine. They scrape the bark, and the scrapings, /465/ wrapped
in leaves, are kept dry by hanging them over the current of air
from a fire until they are needed.

On the day when an Indian is going to prepare poison, every
man of the settlement gets ready to prepare a set of arrow points
to be poisoned.

The preparer of the poison begins by pulverizing the scrapings
of bark between the palms of his hands. He constantly utters a
series of shouts and grunts while doing this. Then he places the
[415] pulverized bark in a funnel made of leaves, into which hot water

/467 cont. /

Division of Labor

462 The men clear the "conucos," plant them, and weed them.
[241] The women carry most of the harvests to their /468/ houses in
[482] their carrying baskets. The men sometimes help carry the
harvests when there is more than the women can carry, or when
the men go to the "conuco" alone.

[224] The men do the hunting and carry the game back to the
house. They may call upon the women to help them when the
game has been brought into the vicinity.

• [226] The men fish with bow and arrow, hooks, and poison. The
women fish with macanas and with baskets.

[499] The men build the bridges.

[342] The men build the structure or framework of the houses and
help build the roofs. The women collect the leaves for covering
the roof and help to roof.

[313] The women cut most of the firewood and carry it to the
settlement. They cut it on the site and carry it to their houses
[482] in the carrying baskets, ready to be used. The men carry to the
house the sticks for roasting meat, and, if they need to be cut
into pieces, they do it once they have arrived.

[252] The women in general cook breakfast for the entire family.
For the other meals, each person generally cooks his own platanos.
The women bake the "casabe" /cassava bread/. The men cook
everything which has to be boiled in the clay pots, such as the
meat of the game which they have taken and the fruit of the
"pijiguao" palm.

[482] When the settlement moves, the women carry almost all
the belongings of the family and as much food as possible in
their carrying baskets, which they hang from their heads by
straps or bands. The men carry their bows, the clay pots, and
any food that the women cannot carry. The men use straps or
bands hanging from their shoulders or their heads, but not baskets.

/156 cont. /

721 In December of 1953 the Shibaatfa-tjeti came back to make
123 another raid, accompanied by the Comishibueitjeti. But the
Majecototjeti had camped outside, on the other side of the river.
Some of the Shibaatfa-tjeti approached us carrying an arrow,
but leaving their bows in the woods with the other men. They
explained that they were friendly visitors and asked where the
Majecototjeti were, because they were supposed to visit them.
[302] But their black war-paint showed that they had come on a raid.
[574] (Visitors are painted with red or mulberry color, but not black.)
[822] When they saw that they were not going to get us to tell them
[412] where the people were, they asked us to give them matches and
fishhooks. They gave us in exchange some knives made of tooth.
After this things calmed down, but from this time on the people
of Majecototjeti have lived inside their palisades when they were
[361] near their main farm.

166 The people of Majecototjeti started a new farm called
361 "Joitja-tjeca" to the south of the Orinoco, where they could
721 live without palisades and feel safe from raids by the Shibaatfa-
tjeti. The Majecototjeti did not plan any retaliatory raid, be-
cause they said, "None of our men have been killed."

727 In September of 1954 I had camped with the Majecototjeti at
361 their new farm to the south of the Orinoco River. Everybody was
[114] calmer there, and they seemed to feel freer than at any time
since the first raid by the Shibaatfa-tjeti had put them on the
alert almost a year before.

222 Anyone who wished to do so could go out and gather fruit,
fish, or hunt crabs, even in small groups. The boys were having
• [226] fun shooting at the fish in the many streams with their little arrows
[411] of split palm shoots and bows made of a curved stick and a piece
[857] of twisted bark. It was the season of the moriche fruit, and the
/157/ women went out almost every day and came back carrying
baskets full of this fruit. One afternoon about 1:00 P.M. some
726 came to the aldeia and said that a great number of tracks had been
seen not far from the aldeia. A group of men went out to investigate.

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fishing and collecting forest fruits. (1923: 299-300. My translation. See also 1922:226.)

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His assertion that the Yanomamö lived only on hunting, fishing, and collecting wild forest fruit was unsupported not only by the existing accounts but also by his own observations; and it has never been verified by any field worker who has spent more than a few days with the Yanomamö.¹ Nor was the conclusion warranted that the Yanomamö had no fixed habitation sites; Koch-Grünberg was visited by one of the groups and the other had a garden site a short distance from where he met them. Finally, the antiquity of the group as a "population layer" is something that can only be speculated about at best; indeed, the concept 'population layer' is itself an analytic construct presupposing a considerable amount of knowledge concerning tribal distributions over a period of time which, at least for this area, is entirely lacking.

The expedition of the Frobenius Institute in 1954-55 conducted the first anthropological inquiry in this area that concentrated exclusively on the study of the Yanomamö. The members of the expedition, Otto Zerries and his assistant, Meinhard Schuster, spent 10 months in the village of Mahekodotedi. They selected the Yanomamö because of their interest in hunters and gatherers; the literature, especially the work of Koch-Grünberg, described the Yanomamö as such. They

¹"It is surprising to notice, that the Waica, formerly reported as a hunting and gathering tribe by visitors who had only superficial contact with them, are actually horticulturists." (Zerries, 1955:78.)

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278 layer of poison. Sometimes other ingredients are added to the poison to make it stickier and less soluble. Without these ingredients, the poison would be washed off by the rain. As an extra precaution against this, some men wrap a leaf around the curare point after it has been attached to the arrow.

415 Arrow-point quivers are made from 2-inch bamboo sections of about 18 inches.
411 The quiver is essentially a tube of wood with a natural joint serving as the bottom of the
[324] case. The bamboo grows wild in large stands, and some villages specialize in collecting
[438] it, making quivers, and trading them to other groups. A piece of monkey, snake, or jaguar
[237] skin, molded to fit over the top prevents water from getting into the tube. It usually contains a dozen or so extra arrow points, fibers for fastening the points to the arrow shaft, a ball of resin used as adhesive, a few splinters of bone used to tip one kind of arrow point, and, occasionally, a magical charm. A fiber or cotton string is tied around the bamboo tube near its top, and a loop is fashioned so that the tube can be worn around the neck. It hangs down the middle of the back.

372 The Yanomamö attach their fire drills and a pair of agouti-tooth knives to the
[824] outside of the bamboo quiver. The fire drill is made from the wood of the cocoa tree and consists of one or two 20-inch long, slender shafts, circular in cross section, and a 12-inch long lanceolate-shaped piece of cocoa wood into which have been worn several holes. The latter piece of wood is placed on the ground and held firmly in place by the foot. The tip of the slender shaft is placed into one of the holes, and the shaft is twirled rapidly with the palm of the hands; the heat of the friction ignites the wood dust that results from the spinning tip, and this is immediately transferred to some cotton tinder. The men usually work in pairs to start a fire, as the dust cools off by the time a single man can get his hands back up to the top of the slender shaft to begin another downward twirling motion.

412 The agouti-tooth knives are manufactured from the lower incisor of the agouti
[237] rodent. The incisors are long, slender, gently curved, and very sharp. The tip of the incisor is shaped like a wedge and is frequently indented. The exterior part of the tooth is much harder than the pith so that a very sharp edge protrudes slightly above the softer, decayed dentine. The Yanomamö keep the dentine worn down by periodically "sharpening" the tooth; this is accomplished by cutting into a particular kind of reed, which apparently contains a corrosive ingredient that attacks the dentine but does not affect the enamel of the tooth. The base of the tooth is fastened in a short piece of wood
[314] by a resin adhesive and a fiber wrapping. The completed knife is as sharp as any steel
[284] chisel, but because of its small size, its usefulness is limited. It is primarily used to whittle lanceolate arrow points from bamboo, a very time-consuming job.

• 226 The jungle also provides another kind of poison used by the Yanomamö to kill fish. The men select a small stream, dam it up, and put the juice of a vine into the water. This stuns the small fish, which then float to the surface where they are scooped up by the women either by handfuls or with loosely woven, shallow baskets (see Fig. 2-2). If the woman is in the middle of the stream, she empties the contents of her basket into her hand and then stores the handful of squirming fish in her mouth until both the basket and her mouth are full. If larger fish are caught, the women bite them behind their heads to kill them and toss them out on the bank. The first one in the stream takes a chance on locating an electric eel; if she is shocked, the others try to locate the eel with sticks and kill it.

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"Razor grass"—a reed—also grows wild in the jungle. It is used by the Yanomamö to cut their hair and to keep their tonsures cleanly shaved. A sliver of this reed is wrapped around the index finger in such a way that the sharp edge is exposed. The practiced hand can shave a head bald in a matter of minutes and with no more pain than would come from using a dull steel razor blade. This grass is also found around some of the villages, but appears not to be cultivated.

HALLUCINOGENIC DRUGS Another useful plant provided by the jungle is the *shew* tree. The inner bark of this tree is used in the manufacture of one kind of hallucinogenic drug. The bark is scraped from the trunk after the exterior layer of bark is removed, or is scraped from the inside of the bark surface itself. This material, which is fairly moist, is then mixed with wood ashes and kneaded between the palms of the hands. Additional moisture is provided by spitting periodically into the pliable wad of drug. When the drug has been thoroughly mixed with saliva and ashes, it is placed on a hot piece of broken clay pot and the moisture driven out with heat. It is ground into a

Fig. 2-2. Women fishing in a dammed stream that has been poisoned by the juice of a wild liana. The poison is introduced upstream by the men, and the stunned fish are collected in baskets by the women.

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